

Panasonic
ideas for life

Super Dynamic III
Surveillance Cameras
Product Lineup

SDIII

Super Dynamic

Super Dynamic III — Exceeding the human eye

Now an even fuller line-up of intelligent, full-featured network cameras

Panasonic introduces the **Super Dynamic III** Series, the first surveillance cameras able to think and act on their own. They detect both external changes and attempts at interference and take the precise action required to prevent loss of vital scenes. Superb image quality, the result of unprecedented image-processing performance, delivers a true picture needed for rock-solid identification. With their extraordinary intelligence and active foresight, **Super Dynamic III** Series cameras bring amazing reality to 24-hour surveillance. The new network cameras added to our line-up make **Super Dynamic III** Series high image quality and multi-function performance accessible via IP networks.

SEES REALITY

Cameras now provide a true picture for all surveillance purposes

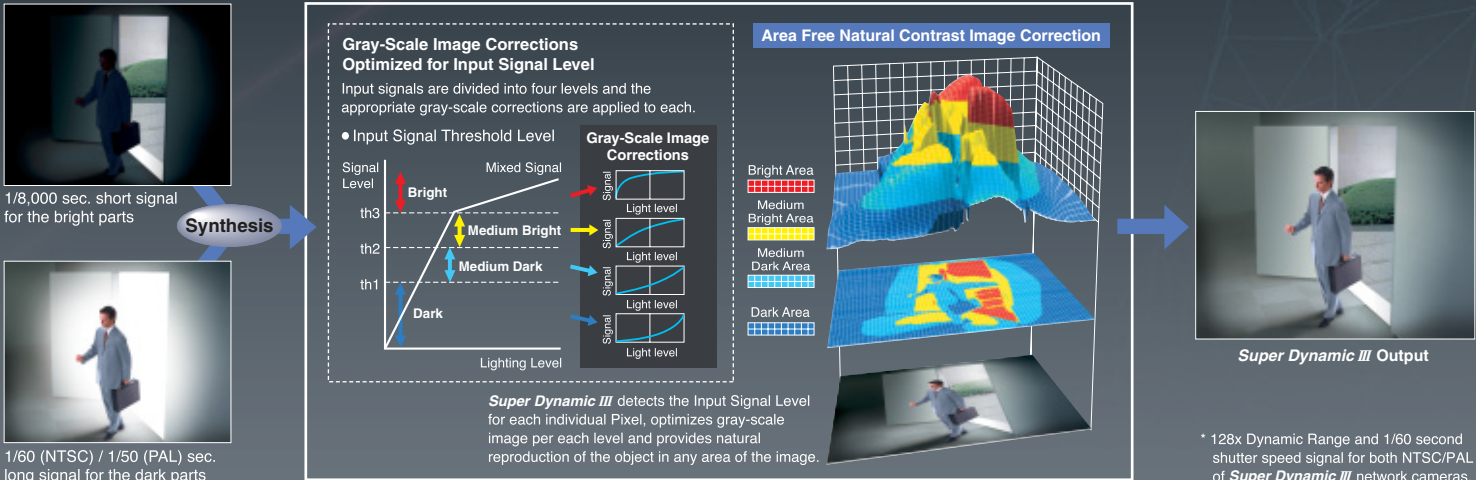
THINKS ACTIVELY

Cameras now think — and act — preventing loss of vital scenes

The Leading Original Technologies Behind Super Dynamic III

Pixel Based 128x (NTSC) / 160x (PAL) Dynamic Range

The double speed CCD outputs a 1/8,000 second short signal to capture the bright area of the image and a 1/60 (NTSC) / 1/50 (PAL) second long signal to capture the shaded area. The enhanced DSP combines these signals to provide a dynamic range 128 (NTSC) / 160 (PAL) times greater than a standard video camera. Also newly developed in the DSP is "Area Free (Pixel Based) Natural Contrast Image Correction", which optimizes the gray-scale image in response to the Input Signal Level of each individual Pixel. The Pixel Based 128x (NTSC) / 160x (PAL) Dynamic Range delivers a smoother natural reproduction of high contrast images, e.g. heavy backlight conditions, regardless of object position, size, shape, or number.



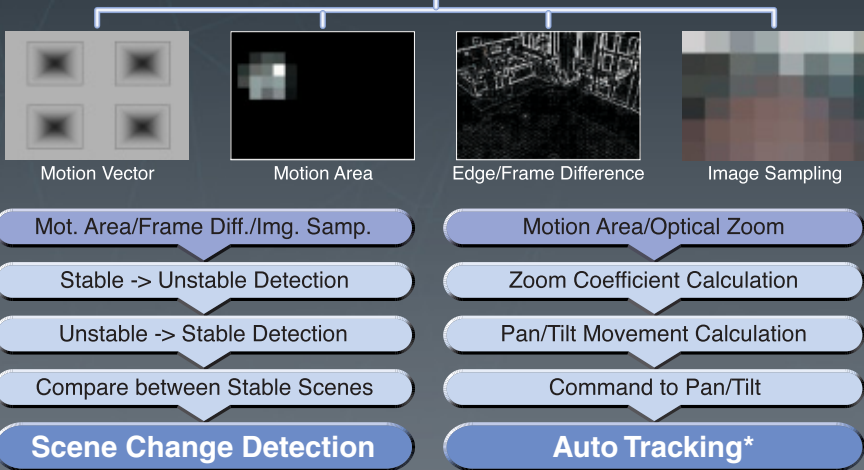
Intelligent Processing

Our newly developed DSP extracts Motion Vector, Motion Area, Edge/Frame Difference and Image Sampling data from the image and sends that data to the new Image Analysis Algorithm. The Algorithm is embodied in the proprietary microprocessor that performs the complex processing required by **Super Dynamic III**'s amazing intelligent functions.

Software Process

- Motion Vector/Motion Area
- Reliability/Dispersion Decision
- Integration/Centering of Motion
- Electronic Zoom Compensation
- Auto Image Stabilizer

Video Process in DSP



SDIII
Super Dynamic

SEES REALITY

To show you reality clearly, *Super Dynamic III* cameras take image processing to new peaks, with all the contrast, detail and color of reality itself, even in dimly lit situations. This breakthrough in visual surveillance delivers the definitive picture you need for accurate identification.

Whatever the Object Pixel Based 128x (NTSC) / 160x (PAL) Dynamic Range

Super Dynamic III uses Area Free (Pixel Based) Natural Contrast Image Correction to optimize contrast and faithfully reproduce objects in every area and position. Combining 1/8,000 sec. and 1/60 (NTSC) / 1/50 (PAL) sec. shutter speed signals gives this amazing system a 128x (NTSC) / 160x (PAL) Dynamic Range that makes it the perfect surveillance solution for ATMs, building entrances, and other situations where contrast changes depending on time, weather and season.



Conventional
Depending on object position, the image may be marred by black spots or halo effects.

Super Dynamic III
Pixel Based 128x (NTSC) / 160x (PAL) Dynamic Range faithfully reproduces every object.

* 128x Dynamic Range and 1/60 second shutter speed signal for both NTSC/PAL of *Super Dynamic III* network cameras.

Real in the Smallest Detail 540-line Horizontal Resolution

The combination of optimized filtering with wide bandwidth digital signal processing developed for the *Super Dynamic III* DSP delivers color images with 540 lines (typical) and B/W images with 570 lines of horizontal resolution, revealing the picture's smallest detail.



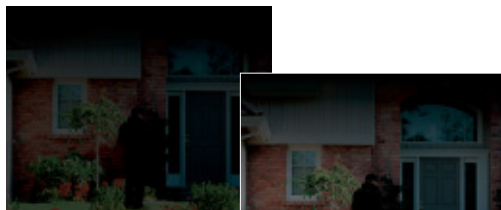
* Horizontal resolution is a term only for analog cameras.

Realistic Natural Color Color Processing Enhancements

To ensure that what you see is the full range of natural color, the digital color circuitry in our newly developed DSP processes color at a finer level of detail, enabling reproduction of even poorly illuminated or pale colors.

Better in Low Light High Sensitivity

All *Super Dynamic III* cameras combine high sensitivity design and electronic sensitivity enhancement functions, enabling them to capture color images even when the lighting is dim. If the situation is too dark, the Day/Night Switching feature automatically switches the camera from color to B/W, perfect for 24-hour surveillance.



Conventional

Super Dynamic III

With No Streaking Adaptive Digital Noise Reduction

The combination of 2D DNR processing for the moving object with 3D DNR for the background corrects movement-generated streaking. Now even the headlights of moving cars can be seen clearly, unmarred by the streaks of light produced by previous 3D DNR object-image processing.



Conventional

Super Dynamic III

Zoom in to Catch Distant Objects (WV-CW970/WV-CW960/WV-CS950/WV-NW960/WV-NS950 Series only) 30x Optical Zoom (Up to 300x with Digital Zoom)

The PTZ Dome Cameras* come equipped with a 30x optical zoom lens. The addition of 10x digital zoom means zoom capability up to 300x, allowing you to zoom in on distant objects in high position, wide area surveillance applications. Combined with high image quality, the result is a new advance in identification capability. * WV-NS202A is 22x optical zoom.

0.065°/sec. Super Fine Pan Control

Our proprietary control chip, DC brushless motor and the optimized speed profile built into the microprocessor give you 0.065°/sec. Super Fine Pan Control. Combined with high-performance zoom, this feature enables you to smoothly track and capture moving objects.

Super Dynamic III
Day/Night Dome Network Camera
WV-NS202A

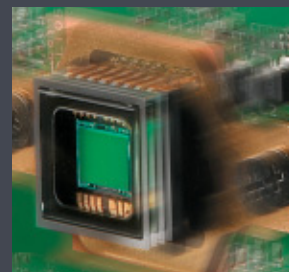
Super Dynamic III
Weather Resistant Dome Camera
WV-CW960 Series
WV-CW970 Series
(Advanced Auto Track)

Super Dynamic III
Vandal Resistant Fixed Dome Camera
WV-CW480 Series

Super Dynamic III
Day/Night Camera
WV-CP480 Series

Auto Back Focus (ABF)

When the camera switches a picture to monochrome from color mode and/or to color from monochrome mode, WV-CP480/WV-CW480/WV-CW380 Series and WV-NW484S automatically adjust the CCD position to achieve the perfect focus. Blurring caused by removing IR cut filter in previous cameras is eliminated, and the perfect focus is ensured for 24 hours in night and day. Auto Back Focus feature also contribute to save the time and labor required to adjust focus after the installation of cameras. Focus can be roughly set when a camera is installed, then Auto Back Focus to be adjusted by optional controller. WV-CW480 Series and WV-NW484S enable Auto Back Focus features with Vandal Resistant mechanism specially designed.

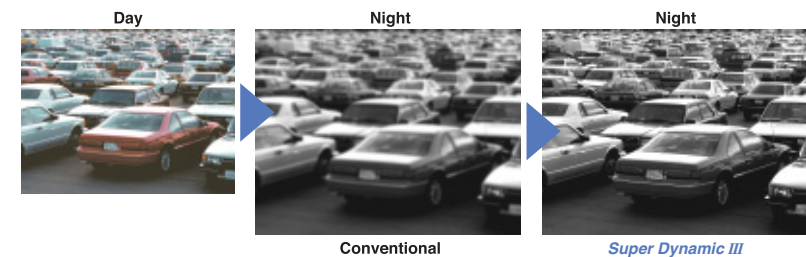


THINKS ACTIVELY

Confronted with changing environments or attempts at interference, these cameras think — and then act — to deliver the best possible image. Super smart, *Super Dynamic III* offers the active reliability to ensure the results you need under a wide variety of conditions for a host of applications.

Sharply Focused Day and Night Auto Back Focus (ABF) (WV-CP480/WV-CW480/WV-CW380 Series and WV-NW484S only)

The ABF feature automatically adjusts the CCD position when changing from color to B/W mode, optimizing the back focus required for clear, sharp images. In addition, the one-push Auto Back Focus feature sharply reduces the time required to focus cameras during installation, allowing focus to be set using the optional system controller.



Conventional

Super Dynamic III

Auto Focus (WV-CW970/WV-CW960/WV-CS950/WV-NW960/WV-NS950 Series and WV-NS202A only)

The PTZ Dome Cameras are all equipped with Auto Focus, ensuring what you see is always sharp in focus.

Removing Blur Auto Image Stabilizer (Except WV-NS202A)

Cameras attached to poles may be affected by high winds. Cameras may also be affected by vibration from aircraft, trains or large trucks. Automatic image stabilization prevents blurring under these conditions.

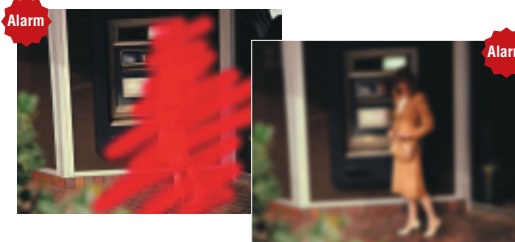


Conventional

Super Dynamic III

Detecting Interference Scene Change Detection (Except WV-NS202A)

This feature detects interference and sends an alarm signal when the camera's operation has been hampered with, such as a manual change in the camera's angle, removal of the camera lens, defocus, blockage of the camera lens with cloth or paint.



Alarm

Alarm

Automatically follows moving objects Auto Tracking (WV-CW970/WV-CW960/WV-CS950/WV-NW960/WV-NS950 Series and WV-NS202A only)

This feature automatically follows the largest movement in the image, causing the camera to pan and tilt to keep the object in the center of the image. The WV-CW970 Series adds a new Template Matching algorithm that compares the recorded image with template color, shape and contrast settings. Use of templates to compare moving objects with other characteristics of the scene enables more accurate tracking. Plus, the operator can lock the camera onto a particular object by pressing a single button on the optional system controller.



The above photographs were taken for the purpose of this explanation; actual performance and images may vary depending on environmental or other conditions.

Super Dynamic III Analog Cameras

Super Dynamic III
Day/Night Dome Camera

WV-CS950 Series

NTSC:
WV-CS954 (24 V AC)
PAL:
WV-CS950 (220 ~ 240 V AC)
WV-CS954 (24 V AC)



30x Optical Zoom Day/Night Dome Camera
featuring *Super Dynamic III*

Super Dynamic III Day/Night Camera

WV-CP480 Series

NTSC:
WV-CP480 (120 V AC)
WV-CP484 (24 V AC or 12 V DC)
PAL:
WV-CP480 (220 ~ 240 V AC)
WV-CP484 (24 V AC or 12 V DC)
WV-CP480 (220 ~ 240 V AC, with RS-485 Control IF)
WV-CP484 (24 V DC or 12 V DC, with RS-485 Control IF)



Super Dynamic III Day/Night Camera with
ABF (Auto Back Focus) for 24 hours a day surveillance

Super Dynamic III
Weather Resistant Day/Night Camera

WV-CW380 Series

NTSC:
WV-CW384 (24 V AC or 12 V DC)
PAL:
WV-CW380 (220 ~ 240 V AC)
WV-CW384 (24 V AC or 12 V DC)



Super Dynamic III
Weather Resistant Dome Camera

WV-CW960 Series
WV-CW970 Series (Advanced Auto Track)

NTSC:
WV-CW964 (24 V AC)
WV-CW974 (24 V AC)
PAL:
WV-CW960 (220 ~ 240 V AC)
WV-CW964 (24 V AC)
WV-CW970 (220 ~ 240 V AC)
WV-CW974 (24 V AC)



All-in-one 24-hour outdoor surveillance camera
featuring 30x zoom and *Super Dynamic III*

Super Dynamic III
Vandal Resistant Fixed Dome Camera

WV-CW480 Series

NTSC: <Smoke Dome Type>
WV-CW484S (24 V AC or 12 V DC)
WV-CW484F (24 V AC or 12 V DC)
PAL: <Clear Dome Type>
WV-CW480S (220 ~ 240 V AC)
WV-CW484F (24 V AC or 12 V DC)



Super Dynamic III Vandal Resistant Fixed Dome Camera with
Day/Night and ABF (Auto Back Focus) for 24 hours a day surveillance



Super Dynamic III Weather Resistant Fixed Camera with
Day/Night and 8x Varifocal lens

Super Dynamic III Network Cameras

Super Dynamic III
Day/Night Dome Network Camera

WV-NS950 Series

NTSC:
WV-NS954 (24 V AC)
PAL:
WV-NS950 (220 ~ 240 V AC)
WV-NS954 (24 V AC)



Dome Network Camera
featuring 30x zoom and *Super Dynamic III*

Super Dynamic III
Day/Night Dome Network Camera

WV-NS202A

NTSC:
WV-NS202A (12 V DC or PoE)
PAL:
WV-NS202A (12 V DC or PoE)

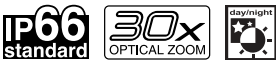


Dome Network Camera
featuring 22x zoom and *Super Dynamic III*

Super Dynamic III
Weather Resistant Dome Network Camera

WV-NW960 Series

NTSC:
WV-NW964 (24 V AC)
PAL:
WV-NW960 (220 ~ 240 V AC)
WV-NW964 (24 V AC)



Weather Resistant Dome Network Camera
featuring 30x zoom and *Super Dynamic III*

Super Dynamic III
Vandal Resistant Fixed Dome Network Camera

WV-NW484S

NTSC: <Smoke Dome Type>
WV-NW484S (24 V AC, 12 V DC or PoE)
PAL: <Clear Dome Type>
WV-NW484S (24 V AC, 12 V DC or PoE)



Network camera designed for heavy duty use
featuring *Super Dynamic III*



Panasonic Preserving the Environment

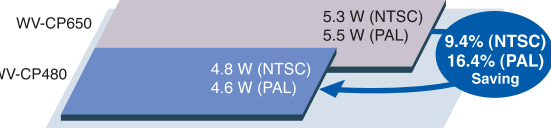
Energy Saving

Panasonic has used proprietary technology to develop the low-energy DSP's that have, for example, reduced energy consumption in our cameras by 9.4% (NTSC) / 16.4% (PAL) since 1997, from 5.3 (NTSC) / 5.5 (PAL) watts (WV-CP650) to 4.8 (NTSC) / 4.6 (PAL) watts (WV-CP480).

Surveillance Camera
WV-CP480



Energy-saving Trend



Lead-free Solder

The hazardous effects of lead solder have been recognized since the 1980s. Panasonic has been a leader in addressing this issue and in 1998 introduced the world's first portable MD player with lead-free solder in its circuit board. The Security Systems Division is now phasing out use of lead solder in all of its products.

Package Recycling

To reduce waste and pollution, we have eliminated Styrofoam and minimized use of polyurethane film in our packaging.



Carton box for WV-CP480 Series

ISO14001 Certification

Besides our R&D Division, Panasonic has achieved the environmental ISO14001 certification for plants in Yokohama, Japan, and in Suzhou, China.



Industry Design Awards

Panasonic CCTV products have won several remarkable Industry Design Awards in the world. Those awards evaluated and qualified excellence of Panasonic CCTV products not only its innovative design but also the contribution to users' benefit through the operation.

iF Design Award

The superior exterior shell design of Panasonic surveillance cameras is highly regarded in Europe, where the WV-NS202 won a 2007 iF Design Award. This was the second consecutive year that a Panasonic *Super Dynamic III* camera won this award following the WV-CS950 won in 2006.



IDEA Award in U.S.A.

Panasonic wins 2006 Industrial Design Excellence Award. WV-CS954 dome camera received a Silver IDEA Award, one of major U.S. business magazine wrote that the WV-CS954 "turns protection into a design element, and lends dignity to an icon that is usually visually invasive."

'06 INDUSTRIAL DESIGN EXCELLENCE AWARDS





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Important

- Safety Precaution: carefully read the operating instructions and installation manual before using this product.
- Panasonic can not be responsible for network performance and/or other manufacturer products that reside on the network.

- All TV pictures are simulated.
- Weights and dimensions are approximate.
- Specifications are subject to change without notice.
- These products may be subject to export control regulations.
- All product pictures are NTSC models.

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